Recording Form for the Citizen Monitoring Biotic Index

Name:_____ Date:_____

Watershed and Stream Names:_____ Time:_____

Location:_____ Site ID:_____
(County, Township, Range, Section, Road, Intersection, Other)

At this point, you should have collected a wide variety of aquatic macroinvertebrates from your three sites. You will now categorize your sample, using the chart (other side) to help you identify the macroinvertebrates found. The number of animals found is not important; rather, the variety of species and how they are categorized tells us the biotic index score. Before you begin, check off the sites from which you collected your sample (see right).

- ☐ Riffle Sampling
- ☐ Snag Areas, Tree Roots, Submerged Logs
- ☐ Leaf Packs
- ☐ Undercut Banks

1. Check the basin with the debris to see if any aquatic macroinvertebrates crawled out. Add these animals to your prepared sample.
2. Fill the ice cube tray half-full with water.
3. Using plastic spoons or tweezers, (be careful not to kill the critters -- ideally, you want to put them back in their habitat after you're finished) sort out the macroinvertebrates and place same species together in their own ice cube tray compartments. Sorting and placing same species together will help insure that you find all varieties of species in the sample.
4. Refer to the "Life in the River Key" and the Citizen Monitoring Biotic Index to identify the macroinvertebrates:
   A. On the back of this page, circle the animals on the index that match those found in your sample.
   B. Count the number of circled animals in each category and write that number in the box provided.
   C. Enter each boxed number in work area below.
   D. Multiply the entered number from each category by the category value.
   E. Do this for all categories.
   F. Total the number of animals circled.
   G. Total the values for each category.
   H. Divide the total values by the total number of animals: total values (b) / total animals (a).
   I. Record this number.

SHOW ALL MATH (Use space below to do your math computations)

No. of animals from group 1 _____ x 4=_____

No. of animals from group 2 _____ x 3=_____

No. of animals from group 3 _____ x 2=_____

No. of animals from group 4 _____ x 1=_____

TOTAL ANIMALS(a)_____ TOTAL VALUE(b)_____

Return form to:

Index score:

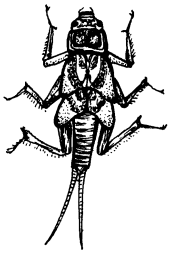
Divide totaled value (b)_____by total no. of animals (a) _____for index score:

Call your local Monitoring Coordinator if you have questions about sampling or determining the Biotic Index Score.

How Healthy is the Stream?

Excellent-------3.6+
Good----------2.6 - 3.5
Fair----------2.1 - 2.5
Poor----------1.0 - 2.0

Group 1: These are sensitive to pollutants. Circle each animal found.



Stonefly Nymph

Dobsonfly Larva

Alderfly Larva

Water Snipe Fly Larva

No. of group 1 animals circled:

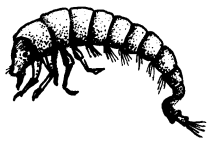
Relative Size Key:

+ =larger than picture

- =smaller than picture

Group 2: These are semi-sensitive to pollutants. Circle each animal found.

Caddisfly Larva*

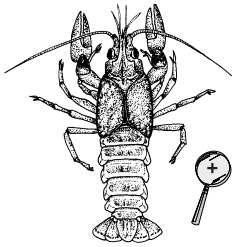


Caddisfly Larva*

Caddisfly Larva*

*All Caddisfly Larva=1

Dragonfly Nymph



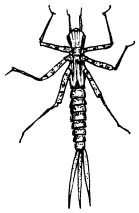
Crawfish

No. of group 2 animals circled:

Cranefly Larva

Freshwater Mussels or Fingernail Clams

Mayfly Nymph



Damselfly Nymph

Water Penny

Riffle Beetle

Group 3: These are semi-tolerant of pollutants. Circle each animal found.

Blackfly Larva

Non-Red Midge Larva

Snails: Orb or Gilled (right side opening)

Amphipod or Scud

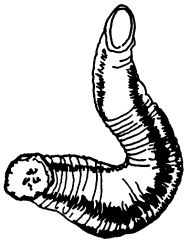
No. of group 3 animals circled:

Group 4: These are tolerant of pollutants. Circle each animal found.

Pouch Snail (left side opening)

Isopod or Aquatic Sowbug

Bloodworm Midge Larva (red)



Leech

Tubifex Worm

No. of group 4 animals circled:

Water Action Volunteers